PCT

国際予備審査報告

WIPO POT

(法第12条、法施行規則第56条) [PCT36条及びPCT規則70]

出願人又は代理人 の <mark>な類記号 JJVC-90-PCT</mark>	今後の手続きについては、国際予備審査報告の送付通知(様式PCT/ IPEA/416)を参照すること。
国際出願番号 PCT/JP03/08108	国際出願日 (日.月.年) 26.06.2003 (日.月.年) 28.06.2002
国際特許分類(IPC) I	nt. Cl' G11B 7/135
出願人(氏名又は名称)	日本ビクター株式会社
2. この国際予備審査報告は、この表	国際予備審査報告を法施行規則第57条 (PCT36条)の規定に従い送付する。 紙を含めて全部で4 ページからなる。 附属書類、つまり補正されて、この報告の基礎とされた及び/又はこの国際予備審む明細書、請求の範囲及び/又は図面も添付されている。 「実施細則第607号参照)
IV × 発明の単一性の欠如	遊 業上の利用可能性についての国際予備審査報告の不作成 Eする新規性、進歩性又は産業上の利用可能性についての見解、それを裏付けるため
国際予備審査の請求書を受理した日 03.12.2003	国際予備審査報告を作成した日 13.08.2004
名称及びあて先 日本国特許庁(IPEA/J 郵便番号100-891 東京都千代田区霞が関三丁目	5 土與 昭一

様式PCT/IPEA/409 (表紙) (1998年7月)

I.	国	際予備審査報	告の	の基礎	·
1.	応	の国際予備審 答するために CT規則70.1	提出	出された差し替え用紙は、この報告語において「	法第6条 (PCT14条) の規定に基づく命令に 出願時」とし、本報告書には添付しない。
		出願時の国際	出題	願書類	
	×	明細暋 明細暋 明細暋	第第第	ページ、国際予	に提出されたもの 備審査の請求 替と共に提出されたもの <u>07.2004</u> 付の 書簡と共に提出されたもの
	×	請求の範囲 請求の範囲 請求の範囲 請求の範囲	第第第第	項、PCT	に提出されたもの 19条の規定に基づき補正されたもの 偏審査の請求書と共に提出されたもの 07.2004 付の書簡と共に提出されたもの
	×	図面 図面 図面	第第第	·	に提出されたもの ・備審査の請求書と共に提出されたもの 付の書簡と共に提出されたもの
		明細書の配	列表	その部分 第 ページ、国際で	特に提出されたもの 予備審査の請求費と共に提出されたもの
2	2	上記の出願書	類の	D言語は、下記に示す場合を除くほか、この国際B	出願の言語である。
		上記の魯類は	、下	下記の言語である語である。	
		PCT	見則	ために提出されたPCT規則23.1(b)にいう翻訳 48.3(b)にいう国際公開の言語 査のために提出されたPCT規則55.2または55.3	
:	3.	この国際出願	it,	、ヌクレオチド又はアミノ酸配列を含んでおり、	次の配列表に基づき国際予備審査報告を行った。 ・
				出願に含まれる售面による配列表	
				出願と共に提出された磁気ディスクによる配列表 この国際予備審査(または調査)機関に提出され	ιた 書面による配列表 ・
		出願後	۲.	この国際予備審査(または調査)機関に提出され	ルた磁気ディスクによる配列表
		H	111.25	2 tr _ tr	出願の開示の範囲を超える事項を含まない旨の陳述
		書面に があっ	よる	る配列表に記載した配列と磁気ディスクによる配列	列表に記録した配列が同一である旨の陳述書の提出
	4: _			記の售類が削除された。	~
1	[」 明細書 ② 讃求の節!	Pa	第	
	Ë			図面の第	
	5. [」 れるので、	7	間審査報告は、補充欄に示したように、補正が出題 この補正がされなかったものとして作成した。(P ける判断の際に考慮しなければならず、本報告に習	順時における開示の範囲を超えてされたものと認めら CT規則70.2(c) この補正を含む差し替え用紙は上 系付する。)
				• •	
-					·

IV.	発明の単一性の欠如
1.	請求の範囲の減縮又は追加手数料の納付の求めに対して、出願人は、
	請求の範囲を減縮した。
	× 追加手数料を納付した。
	□ 追加手数料の納付と共に異職を申立てた。
	間求の範囲の減縮も、追加手数料の納付もしなかった。
2	- 国際予備審査機関は、次の理由により発明の単一性の要件を満たしていないと判断したが、PCT規則68.1の規定に従い、請求の範囲の減縮及び追加手数料の納付を出願人に求めないこととした。
3	. 国際予備審査機関は、PCT規則13.1、13.2及び13.3に規定する発明の単一性を次のように判断する。
	─────────────────────────────────────
	□ 以下の理由により満足しない。
	4. したがって、この国際予備審査報告費を作成するに際して、国際出願の次の部分を、国際予備審査の対象にした。
	すべての部分
	□ 請求の範囲 に関する部分

v.		生、進歩f 及び説明	生又は産業上の	利用可能性についての法第1	 2条(PCT35条(2))に定める見 続	A、それを裏付ける
1.	見解					
	新規性	(N)		請求の範囲 請求の範囲	15-27, 29, 31	·有 無
	海朱松	(15)		語求の範囲 :	15-27, 29, 31	有

産業上の利用可能性 (IA)

進歩性(IS)

請求の範囲 請求の範囲

請求の範囲

有 15-27, 29, 31

文献及び説明 (PCT規則70.7)

請求の範囲15-27, 29, 31

文献1: JP 2002-117572 A (シャープ株式会社) 2002.04.19

全文, 図1-26

文献2: JP 2000-339745 A (ソニー株式会社)

2000.12.08全文, 図1-16

文献3: JP 2001-76370 A (ソニー株式会社)

2001.03.23 全文,図1-12

は、当該技術分野における一般的技術水準を示す文献であって、第1レーザ光源 と、第1レーザ光源とは波長の異なる第2レーザ光源と受光手段とを一体的に備えた集積デバイスと、第1及び第2レーザ光源から出射された後情報記録媒体か ら戻るレーザ光を共に集積デバイスの受光手段に入射させるレーザ光光路分岐素 子を有する光ピックアップが記載されているが、第1レーザー光に対して偏光選 択性を有し、第2レーザー光に対して偏光非選択性を有する偏光ビームスプリッ タをレーザ光光路分岐素子として用いる構成は、国際調査報告で列記した文献の いずれにも、記載も示唆もされていない。

(当該発光点の、前記傾斜面・PBS膜面等を含む光学系による像点)と第2レーザ光の発光点が一致、若しくは同軸光軸上に位置するように設定されているため、ホログラム素子133の分割線及び対物レンズ203、瞳に対する位置オフセットが事実上0となり、良好なトラッキング誤差信号及びフォーカス誤差信号を得ることができる。

(5) フロントモニタ104からの信号により光出力制御を容易に行うことができる。

なお前記実施形態において、第1レーザ光は650nm帯域の波長を有し、第2レーザ光は780nm帯域の波長を有するとした。しかし、前記 第1レーザ光は400nm帯域あるいは780nm帯域の波長を有してもよい。また第2レーザ光は650nm帯域あるいは400nm帯域の波長帯の波長を有してもよい。

なお、この第1実施形態において、偏光ビームスプリッタ105は、プリズム105aと105bと偏光ビームスプリッタ膜面118とから成り、プリズムと称することもできる(以下の実施例に付いても同様である)。 図17はこの発明の光ピックアップの第2実施形態を示す概略図である。

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同図において、図6乃至図12と同一又は類似の番号を付した部材は、 第1実施形態における各部材と同一または類似の部材を示す。

20 この第2実施形態の光ピックアップ240は、概略、第1実施形態と同様の構成を有する。

すなわち図17に示すように、光ピックアップ240は、記録可能のパワーを有する第1レーザ光(波長650nm帯域)を出射する第1レーザ光源241と、偏光ビームスプリッタ(PBS)膜面118を含む偏光ビームスプリッタ244と、記録可能のパワーを有する第2レーザ光(波長780nm帯域)を出射する第2レーザ光源128(図11)及び前記第1,第2レーザ光を受光する受光手段を備える集積デバイス112と、を有する。また偏光ビームスプリッタ(PBS)膜面118は、図10に示す構成を有し、図9に示す波長特性を有する。

請 求 の 範 囲

- 1. (削除)
- 5 2. (削除)
 - 3. (削除)

- 13. (削除)
- 14. (削除)
- 15. 第1波長を有し、且つ、記録可能なパワーを有する第1レーザ光源と、
- 5 前記第1波長よりも長い第2波長を有し、且つ、記録可能なパワーを有する第2レーザ光を出射する第2レーザ光源及び前記第1,第2レーザ光を受光する受光手段をそれぞれ集積素子として基板の主面上に一体的に備えた集積デバイスと、
- 前記第1波長を有する前記第1レーザ光に対して偏光選択性を有し、前 10 記第2波長を有する前記第2レーザ光に対して偏光非選択性を有し、且つ、 前記第1レーザ光源から出射された前記第1レーザ光を入射させる第1 面と、前記第1レーザ光を情報記録媒体側へ出射させると共に、前記情報 記録媒体側からの前記第1レーザ光の復路光を入射させる第2面と、前記 復路光を前記集積デバイス側に出射させる第3面とを備えた偏光ビーム スプリッタであるレーザ光光路分岐素子とを有する
 - ことを特徴とする光ピックアップ。
 - 16. 請求の範囲第15項に記載された光ピックアップであって、 前記レーザ光光路分岐素子は、前記レーザ光光路分岐素子に対してP偏

ることを特徴とする光ピックアップ。

25. (補正後) 請求の範囲第15項乃至第24項のいずれか一に記載された光ピックアップであって、

前記第1レーザ光源と前記レーザ光光路分岐素子の間に、当該第1レーザ光源からの第1レーザ光を平行化する第1コリメータレンズを有し、前記集積デバイスと前記レーザ光光路分岐素子の間に、当該第2レーザ光源からの第2レーザ光を平行化する第2コリメータレンズを有することを特徴とする光ピックアップ。

26. 請求の範囲第25項に記載された光ピックアップであって、

10 前記レーザ光光路分岐素子は、前記第1コリメータレンズによって平行 化された第1レーザ光の平行光束の入射平面を円形に整形するために、前 記平行光束の光軸に対して傾斜した傾斜面を有することを特徴とする光 ピックアップ。

27. 請求の範囲第15項乃至第26項のいずれか一に記載された光ピ 15 ックアップであって、

前記第1レーザ光は650nm帯の波長を有し、前記第2レーザ光は780nm帯の波長を有することを特徴とする光ピックアップ。

28. (削除)

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29. (補正後) 請求の範囲第15項乃至第27項のいずれかーに 20 記載の光ピックアップであって、前記第1レーザ光源から出射された 第1レーザ光の強度分布の長軸方向が、前記第1乃至第3光路を含む 面内にあることを特徴とする光ピックアップ。

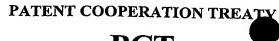
30. (削除)

日本国 计 23.7.2004

31. (補正後) 請求の範囲第15項乃至第27項又は第29項の いずれか一に記載の光ピックアップであって、前記レーザ光光路分岐 素子は、前記第2レーザ光についてP偏光の透過率がS偏光の透過率 より大きいことを特徴とする光ピックアップ。

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Translation





PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference		C N-416	
JJVC-90-PCT	FOR FURTHER ACTION	` Preliminary	ication of Transmittal of International Examination Report (Form PCT/IPEA/416)
International application No. PCT/JP2003/008108	International filing date (day		Priority date (day/month/year)
	26 June 2003 (26.0	6.2003)	28 June 2002 (28.06.2002)
International Patent Classification (IPC) or na G11B 7/135	tional classification and IPC		
G11B //133			
Applicant			
VICI	TOR COMPANY OF JA	PAN, LIMI	TED
 This international preliminary examinand is transmitted to the applicant account. 	nation report has been prepare cording to Article 36.	d by this Interr	national Preliminary Examining Authority
2. This REPORT consists of a total of _	4 sheets, includ	ing this cover s	heet.
This report is also accompanie	d by ANNEXES, i.e., sheets	of the description	on, claims and/or drawings which have been
amended and are the basis for 70.16 and Section 607 of the A			tions made before this Authority (see Rule
These annexes consist of a total	diministrative histractions un	der the PCT).	
	silects.		
This report contains indications relating	ng to the following items:		
I Basis of the report			
II Priority			
III Non-establishment of	opinion with regard to novelt	y, inventive ste	p and industrial applicability
IV Lack of unity of inven	tion		\
V Reasoned statement un citations and explanati	nder Article 35(2) with regard ions supporting such statemer	l to novelty, inv	ventive step or industrial applicability;
VI Certain documents cite			
VII Certain defects in the i	nternational application		
VIII Certain observations o	n the international application	n	
1			1
	·		
Date of submission of the demand	Date of	completion of	this report
03 December 2003 (03.12.2			•
	2003)	13 Aı	ugust 2004 (13.08.2004)
Name and mailing address of the IPEA/JP	Author	ized officer	
			ľ
Facsimile No.	Telepho	one No.	

Form PCT/IPEA/409 (cover sheet) (July 1998)

INTERNATIONAL PRESENTING EXAMINATION REPORT

Ir ational application No.
PCT/JP2003/008108

I.	Basis	of the r	eport				
1.	With	regard t	to the elements of	of the international ap	plication:*		
				ation as originally fil		•	
ĺ	\boxtimes		scription:				
		pages			1-29,31-	.53	· on originally Cl. 4
١		pages					, as originally filed , filed with the demand
		pages		30		, filed with the letter of	
	\boxtimes	the cla	ims:		······································		y 200 ((200 ;) 200 ;)
İ		pages			15-24,26	-27	
		pages					, as originally filed er with any statement under Article 19
		pages					, filed with the demand
		pages		25,29,31		filed with the letter of	23 July 2004 (23.07.2004)
	\boxtimes	the dra	wings:				(23101.2001)
		pages			1/31-31/	21	
		pages					, as originally filed
		pages					, filed with the demand
		he seque		of the description:	 -	, med with the feller of _	
	Ш.	pages		-			
		pages					, as originally filed
		pages					, filed with the demand
_	*****	_					
2.	the ir	e elemen	ts were available	or furnished to this	Authority in the	inder this item.	nis Authority in the language in which which is:
		the lan	guage of publica	tion of the internation	nal application ((under Rule 48.3(b)).	<i>~</i> "
	Ш	the lan or 55.3	guage of the tra	nslation furnished fo	or the purposes	of international preliminar	y examination (under Rule 55.2 and/
3.	With prelin	•		out ou ale bas	no or the sequen	e disclosed in the internatice listing:	tional application, the international
	님			tional application in			
	님	filed to	gether with the i	nternational applicati	ion in computer	readable form.	
	님			to this Authority in v			İ
	님			to this Authority in c			
		mitorna	donai application	i as illed has been ful	rnished.		go beyond the disclosure in the
		The sta	atement that the trnished.	information records	ed in computer	readable form is identical	to the written sequence listing has
4.	\boxtimes	$\Gamma \rightarrow$		esulted in the cancell			
				pages			
				1-14,28,30			
		LJ 1	the drawings, she	eets/fig			
5.		This rep	ort has been esta the disclosure as	ablished as if (some of filed, as indicated in	of) the amendm the Supplemen	tents had not been made, si tal Box (Rule 70.2(c)).**	nce they have been considered to go
	Replacin this		heets which hav as "originally	e been furnished to ti filed" and are not	he receiving Of annexed to the	Tice in response to an invita is report since they do no	ation under Article 14 are referred to ot contain amendments (Rule 70.16
**,	Any re	placeme	ent sheet contain	ing such amendments	must be referre	ed to under item I and anne	xed to this report.

INTERNATIONAL PROMINARY EXAMINATION REPORT

1	International application No.
	PCT/JP03/08108

IV. Lack of unity of invention	
1. In response to the invitation to restrict or pay additional fees the applicant has:	
restricted the claims.	
paid additional fees.	
paid additional fees under protest.	
neither restricted nor paid additional fees.	
2. This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.	
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is	
complied with.	
not complied with for the following reasons:	
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	-
Consequently, the following parts of the international application were the subject of international preliminary examination in establishing this report:	
all parts.	
the parts relating to claims Nos.	
•	1

INTERNATIONAL PRI

UNARY EXAMINATION REPORT

Interna	tional application No.
	PCT/JP03/08108

atement		·	
Novelty (N)	Claims	15-27, 29, 31	YE
	Claims	,	NO
Inventive step (IS)	Claims	15-27, 29, 31	YE
	Claims		NO
Industrial applicability (IA)	Claims	15-27, 29, 31	YE
	Claims		NO

2. Citations and explanations

Claims 15-27, 29 and 31

Document 1: JP, 2002-117572, A (Sharp Corp.), 19 April, 2002 (19.04.02), full text, Figs. 1-26 Document 2: JP, 2000-339745, A (Sony Corp.), 8 December, 2000 (08.12.00), full text, Figs. 1-16 Document 3: JP, 2001-76370, A (Sony Corp.), 23 March, 2001 (23.03.01), full text, Figs. 1-12

The above documents, which show the general technical standards in the relevant technical fields, describe an optical pickup having (1) a first laser beam source, (2) an integrated device having (a) a second laser beam source with a wavelength different from that of the first laser beam source and (b) a beam-receiving means both integrated therein, and (3) a laser beam path branching element to let both the beams that have been emitted by the first and second laser beam sources and then returned from an information recording medium together into the beam-receiving means of the integrated device; however, a constitution wherein a polarization beam splitter having polarization selectivity for beams of the first laser and polarization non-selectivity for those of the second laser is used as a laser beam path branching element, is neither described nor suggested in any of the documents cited in the ISR.



Our Ref.: JJVC-90-PCT-US

English translation of Amendment under PCT Article 34

PCT/JP2003/008108

P. 30 (WO2004/003901)

(the image point of that light emitting point from the optical system including the inclined surface and PBS film surface) and the light emitting point of the secondary laser light are set so as to be matching or positioned on the same optical axis, a position offset to a divisional line of the hologram elements 133, the objective lens 203 and a pupil substantially vanish, enabling satisfactory tracking error signals and focus error signals to be obtained.

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(5) Light output can be easily controlled by the signal from the front monitor 104.

In the description of the above embodiment the primary laser light has a wavelength of the 650 nm band and the secondary laser light has a wavelength of the 780 nm band, however it is also suitable for the primary laser light to have a wavelength of the 400 nm band or the 780 nm band, moreover the secondary laser light may have a wavelength of the 650 nm band or the 400 nm band.

In this first embodiment the polarized light beam splitter 105 comprises the prisms 105a and 105b and the PBS film surface 118, however here, and in respect of subsequently described embodiments, the polarized light beam splitter 105 can be referred to as a prism.

FIG. 17 shows a schematic illustration of a second embodiment of an optical pickup according to the present intention.

In FIGS. 6 to 12 those elements having like reference numerals indicate those elements that are similar or the same as the respective elements of the first embodiment.

The optical pickup 240 of this second embodiment is of substantially the same configuration as the optical pickup according to the first embodiment.

That is to say, as shown in FIG. 17, this optical pickup comprises a primary laser light source 241 for emitting a primary laser light (wavelength of the 650 nm band) having sufficient power for recording, a polarized light beam splitter 244 including a polarized light beam splitting (PBS) film surface 118, and an integrated device 112 further comprising a secondary light source 128 (FIG. 11) for emitting a secondary laser light (having a wavelength of the 780 nm band) and having sufficient power for recording as well as light receiving means for receiving light from the primary and the secondary

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laser lights. Further, the PBS film surface 118 has the configuration as shown in <u>FIG 10</u> and the wavelength reflection/transmission properties as shown in FIG. 9.

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- 15. An optical pickup comprising:

a primary laser light source for emitting a primary laser light having a first wavelength and having sufficient power for recording;

an integrated device further comprising a secondary laser light source for emitting a secondary laser light having a second wavelength that is longer than the first wavelength and having sufficient power for recording as well as light receiving means for receiving light of the primary and secondary laser lights; and

laser light optical path separating elements that are a polarized light beam splitter further comprising a first surface into which the first laser light emitted from the primary laser light source is injected, that has polarization selectivity in respect of the primary laser light having the first wavelength and no polarization selectivity in respect of the secondary laser light having the second wavelength, a second surface from which the primary laser light is emitted to the information recording medium side and into which return path light of the primary laser light from the information recording medium side is injected and a third surface from which the return path light is emitted to the integrated device side.

- 16. The optical pickup according to claim 15 wherein the laser light optical path separating elements pass all primary laser light having P polarization in relation to thereto, while reflecting all primary laser light having S polarization and reflecting all of the secondary laser light regardless of the polarization thereof.
- 17. The optical pickup according to claim 15 wherein the laser light optical path separating elements pass all of the primary laser light having P polarization in relation thereto, while reflecting all of the primary laser light having S polarization and passing all of the secondary laser light regardless of the polarization thereof.
- 18. The optical pickup according to claim 15 wherein the laser light optical path separating elements have a fourth surface that passes, from among the primary laser light, P polarized light components in relation to this polarized light beam splitter, passes from 5 percent to 20 percent of S polarized light components while reflecting the remainder, reflects all of the secondary laser light regardless of the direction of polarization thereof





and emits from 5 percent to 20 percent of the primary laser light to light quantity detecting elements in the forward direction thereto.

- 19. The optical pickup according to claim 15 wherein the laser light optical path separating elements of this optical pickup pass primary laser light emitted from the primary laser light source toward the information recording medium side and reflect return path light of the primary laser light from the information recording medium to the integrated device side, reflect the secondary laser light from the secondary laser light source to the information recording medium side and reflect the secondary laser light from the information recording medium to the integrated device side, and the light receiving elements receive light that is return path light of the primary laser light or the secondary laser light from the information recording medium, emitted from the laser light optical path separating elements.
- 20. The optical pickup according to claim 19 wherein the laser light optical path separating elements function, in relation to wavelengths of the primary laser light, to pass P polarized light and to reflect S polarized light, and function, in relation to wavelengths of the secondary laser light, as a total light reflecting prism reflecting both P polarized light and S polarized light.
- 21. The optical pickup according to claim 19 wherein the primary laser light source, the integrated device and the laser light optical path separating elements are disposed such that the optical axes connecting therebetween are positioned on the same plane, the primary laser light source is disposed such that the direction of polarization of the primary laser light is parallel to that plane and the secondary laser light source is disposed such that the direction of polarization of the secondary laser light is perpendicular to that plane.
- 22. The optical pickup according to either of claim 18 or claim 19 wherein a collimator lens that collimates the primary laser light and the secondary laser light traveling from the laser light optical path separating elements to the objective lens is





disposed between the laser light optical path separating elements and objective lens.

23. The optical pickup according to claim 15 wherein the laser light optical path separating elements reflect the primary laser light emitted from the primary laser light source to the information recording medium side, pass return path light of the primary laser light from the information recording medium to the integrated device side, pass the secondary laser light from the secondary laser light source to the information recording medium side and pass return path light of the secondary laser light from the information recording medium to the integrated device side, and the light receiving means receives return path light of the primary laser light source and the secondary laser light source from the information recording medium, emitted from the laser light optical path separating elements.

- 24. The optical pickup according to claim 23 wherein the laser light optical path separating elements function, in relation to wavelengths of the primary laser light, to reflect S polarized light and to pass P polarized light, and function, in relation to wavelengths of the secondary laser light, as a light passing member that passes both P polarized light and S polarized light.
- 25. (Amended) The optical pickup according to any of claims 15 to 24 wherein a primary collimator lens for collimating the primary laser light from the primary laser light source is disposed between the primary laser light source and the laser light optical path separating elements and a secondary collimator lens for collimating the secondary laser light from the secondary laser light source is disposed between the integrated device and the laser light optical path separating elements.
- 26. The optical pickup according to claim 25 wherein the laser light optical path separating elements of this optical pickup have an inclined surface that, in order to make the plane of incidence of a parallel light beam of the primary laser light made parallel by the first collimator lens into a circular form, is inclined in relation to the optical axis of that parallel light beam.



27. The optical pickup according to any of claims 15 to 26 wherein the primary laser light has a wavelength of the 650 nm band and that the secondary laser light has a wavelength of the 780 nm band.

28. (Cancel)

29. (Amended) The optical pickup according to any of claims 15 to 27 wherein the long axial direction of the intensity distribution of the primary laser light emitted from the primary laser light source is in the plane including the first to third optical paths.

30. (Cancel)

31. (Amended) The optical pickup according to any of claims 15 to 27, 29 wherein the laser light optical path separating elements operate in respect of the secondary laser light such that the ratio of P polarized light that is passed is greater than the ratio of S polarized light.



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